

PATENT**REMARKS**

In the outstanding Office Action, Claims 1, 16-18, and 25-30 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Number 6,181,968 to Limousin. Claims 2-6, 19, and 22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Limousin in view of U.S. Patent Number 5,476,485 to Weinberg et al. Claims 7-15, 20, 21, 23, and 24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Limousin in view of Weinberget al. and further in view of U.S. Patent Number 6,278,894 to Salo et al. Reconsideration is respectfully requested in light of the following remarks.

Claims 1, 18, and 27 are directed to a method and corresponding system that provides pacing to simultaneously capture both the right and left ventricles. According to the method, simultaneous capture of both ventricles is achieved by delivering a single pacing pulse in a cross-chamber configuration between an electrode associated with the left ventricle and an electrode in the right ventricle, which results in the synchronous capture of both ventricles. In other words, using a bipolar electrode configuration that includes an electrode in the right ventricle and an electrode on the left side of the heart, the claimed invention achieves simultaneous, biventricular capture with a single pacing pulse.

The Examiner rejected claims 1, 18 and 27 based on the Limousin patent. According to the Examiner, the Limousin patent discloses each and every element found in Applicant's claim 1, 18, and 27, and the Examiner points to column 1, lines 5-20, column 2, lines 6-26, and column 3, lines 7-12 which purportedly describe each feature. However, a read of each of those portions of the Limousin patent (not to mention the entire patent) reveals that Limousin simply teaches a biventricular stimulation system that stimulates both ventricles, but fails to disclose Applicant's novel approach to achieve biventricular stimulation. In the first place, Limousin never discloses coupling an electrode on the right side of the heart and an electrode on the left side of the heart to the same output channel, so that a pacing pulse is delivered in a cross-chamber manner.

Moreover, at column 2, lines 16-20, the Limousin system is described as being capable of delivering a "stimulation impulse on the same site(s)." Clearly, stimulation to

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"the same site(s)" means the stimulation may be applied to either one or both sites (i.e., to either one ventricle or to both ventricles). This cannot be achieved when the right ventricular electrode and the left ventricular electrode are coupled to the same output channel, as this would result in both ventricles being stimulated every time a pacing pulse is delivered. Therefore, Limousin does not teach or suggest a system in which a single pacing pulse is delivered in a cross-chamber configuration; rather, when biventricular stimulation is desired, the system in Limousin delivers a first pacing pulse to the right ventricle, and a second pacing pulse to the left ventricle. Limousin therefore does not anticipate Applicant's claims.

Claims 2-6, 19, and 22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Limousin in view of U.S. Patent Number 5,476,485 to Weinberg et al. As described above, Limousin fails to teach or suggest a method of biventricular pacing that delivers a single pacing pulse in a cross-chamber configuration between the right and left ventricles to synchronously capture both ventricles. Likewise, Weinberg et al. fail to teach or suggest delivering a single pacing pulse between an electrode in the right ventricle and an electrode associated with the left ventricle. Therefore, the prior art, whether taken alone or in combination, fails to teach applicant's claimed invention as recited in claims 1, 18, and 27.

The Salo et al. patent is directed to a system that measures impedance by delivering AC signals between right and left ventricular leads. However, as with Limousin and Weinberg et al. Salo et al. fail to teach or in any way suggest delivering a single stimulation pulse between a left-side electrode and a right-side electrode to capture the left and right heart chambers with the single pulse.

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CONCLUSION

In light of the above remarks, it is respectfully submitted that the application is in condition for allowance, and an early notice of allowance is requested.

Respectfully submitted,

11/30/04
Date

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